

Family list

1 application(s) for: JP11308065 (A)

**METHOD AND DEVICE FOR ADJUSTING FREQUENCY OF
CRYSTAL RESONATOR****Inventor:** MIYAJIMA HIROO ; ASUKE SHINTARO (+1)**EC:****Publication Info:** JP11308065 (A) - 1999-11-05
JP3726488 (B2) - 2005-12-14**Applicant:** SEIKO EPSON CORP**IPC:** H01L21/302; H03H3/04; H01L21/02; (+3)**Priority Date:** 1998-04-23Data supplied from the **espacenet** database — Worldwide

METHOD AND DEVICE FOR ADJUSTING FREQUENCY OF CRYSTAL RESONATOR

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Also published as:

Publication date: 1999-11-05

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Inventor(s): MIYAJIMA HIROO; ASUKE SHINTARO; YAMAZAKI TADASHI +

Applicant(s): SEIKO EPSON CORP +

Classification:

- **international:** H01L21/302; H03H3/04; H01L21/02; H03H3/00; (IPC1-7): H03H3/04; H01L21/302

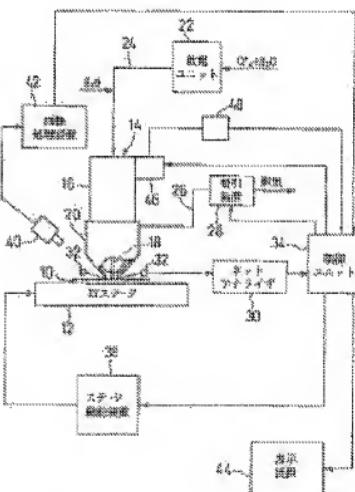
- **european:**

Application number: JP19980113942 19980423

Priority number(s): JP19980113942 19980423

Abstract of JP 11308065 (A)

PROBLEM TO BE SOLVED: To easily adjust frequency in atmospheric pressure. **SOLUTION:** In a crystal wafer 10, a 1st resonator chip is arranged at a working position by an XY stage 12. An image processor 42 inputs to a control unit 34 that the chip is set to the working position from an image-pickup image of a positioning camera 40. A processing unit 14 makes a jetting nozzle 18 spray reaction gas from a discharging unit 22 to the wafer 10, an absorption nozzle 26 absorbs jetted reaction gas and locally etches the crystal wafer. The unit 34 controls the position of the unit 14 via a drive mechanism 46, based on a detection signal of a position sensor 48, makes the unit 14 move and etch crystal, stops the etching of the wafer 10 when an oscillation frequency detected by a net analyzer 30 becomes a reference value, feeds the stage 12 by a prescribed pitch and sets the next chip to the working position.



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(19) 日本国特許庁 (J P)

(12) 公開特許公報 (A)

(11) 特許出願公開番号

特開平11-308065

(43) 公開日 平成11年(1999)11月5日

(51) Int.Cl.^a

H 03 H 3/04

識別記号

F I

H 03 H 3/04

B

H 01 L 21/302

H 01 L 21/302

A

審査請求 未請求 請求項の数4 O L (全 6 頁)

(21) 出願番号

特願平10-113942

(22) 出願日

平成10年(1998)4月23日

(71) 出願人 000002369

セイコーエプソン株式会社

東京都新宿区西新宿2丁目4番1号

(72) 発明者 宮島 弘夫

長野県飯田市大和3丁目3番5号 セイコーエプソン株式会社内

(72) 発明者 足助 慎太郎

長野県飯田市大和3丁目3番5号 セイコーエプソン株式会社内

(72) 発明者 山崎 正

長野県飯田市大和3丁目3番5号 セイコーエプソン株式会社内

(74) 代理人 弁理士 鈴木 喜三郎 (外2名)

(54) 【発明の名称】 水晶振動子の周波数調整方法および装置

